CLAIMS

What is claimed is:

1. An isolated polynucleotide that encodes a polypeptide of at least 60 amino acids, the polypeptide having a sequence identity of at least 95% based on the Clustal method of alignment when compared to a polypeptide selected from the group consisting of SEQ ID NOs: 18, 20, 22, 24, 26, 28, 2, 4, 6, 8, 16, 30, 32, 34, 36, 10, 12, and 14.

2. The polynucleotide of Claim 1 wherein the polynucleotide encodes a polypeptide selected from the group consisting of SEQ ID NOs: 18, 20, 22, 24, 26, 28, 2, 4, 6, 8, 16, 30, 32, 34, 36, 10, 12, and 14.

3. The polynucleotide of Claim 1, wherein the polynucleotide comprises a nucleotide sequence selected from the group consisting of SEQ ID NO: 17, 19, 21, 23, 25, 27, 1, 3, 5, 7, 15, 29, 31, 33, 35, 9, 11, and 13.

4. The polynucleotide of Claim 1, wherein the polypeptide is a disease resistance factor.

5. The polynucleotide of Claim 4, wherein the polypeptide is a COI1.

6. An isolated complement of the polynucleotide of Claim 1, wherein (a) the complement and the polynucleotide consist of the same number of nucleotides, and (b) the nucleotide sequences of the complement and the polynucleotide have 100% complementarity.

7. An isolated nucleic acid molecule that (1) comprises at least 180 nucleotides and (2) remains hybridized with the isolated polynucleotide of Claim 1 after a wash with 0.1X SSC, 0.1% SDS, and 65°C.

8. A cell comprising the polynucleotide of Claim 1.

9. The cell of Claim 8, wherein the cell is selected from the group consisting of a yeast cell, a bacterial cell and a plant cell.

10. A transgenic plant comprising the polynucleotide of Claim 1.

11. A method for transforming a cell comprising introducing into a cell the polynucleotide of Claim 1.

12. A method for producing a transgenic plant comprising (a) transforming a plant cell with the polynucleotide of Claim 1, and (b) regenerating a plant from the transformed plant cell.

13. A method for producing a polynucleotide fragment, the method comprising (a) selecting a nucleotide sequence comprised by the polynucleotide of Claim 1, and (b) producing a polynucleotide fragment containing the nucleotide sequence.

14. The method of Claim 13, wherein the fragment is produced *in vivo*.

15. An isolated polypeptide comprising (a) at least 60 amino acids, and (b) has a sequence identity of at least 95% based on the Clustal method compared to an amino acid sequence selected from the group consisting of SEQ ID NOs18, 20, 22, 24, 26, 28, 2, 4, 6, 8, 16, 30, 32, 34, 36, 10, 12, and 14.

16. The polypeptide of Claim 16 wherein the polypeptide has a sequence selected from the group consisting of SEQ ID NOs: 18, 20, 22, 24, 26, 28, 2, 4, 6, 8, 16, 30, 32, 34, 36, 10, 12, and 14.

17. The polypeptide of Claim 16, wherein the polypeptide is a disease resistance factor.

18. The polypeptide of Claim 17, wherein the polypeptide is a COI1.

19. A chimeric gene comprising the polynucleotide of Claim 1 operably linked to at least one suitable regulatory sequence.

20. A method for altering the level of disease resistance factor expression in a host cell, the method comprising:

(a) Transforming a host cell with the chimeric gene of claim 20; and
(b) Growing the transformed cell in step (a) under conditions suitable for the expression of the chimeric gene.